

WHAT IS CLAIMED IS:

- Sub A, 1. A polishing method, comprising the step of polishing a surface of a substrate containing Ru or a Ru compound in a surface region with a polishing liquid containing tetravalent cerium ions.
2. A polishing method according to claim 1, wherein said polishing liquid further contains nitrate ions.
3. A polishing method according to claim 2, wherein said polishing liquid contains at least one kind of cerium compound selected from the group consisting of cerium (IV) nitrate and diammonium cerium (IV) nitrate.
4. A polishing method according to claim 1, wherein said polishing liquid does not contain abrasive grains.
5. A polishing method according to claim 1, wherein said Ru compound is SrRuO_3 .
6. A polishing method, comprising the step of polishing a surface of a substrate containing Ru or a Ru compound in a surface region with a polishing liquid containing tetravalent cerium ions, wherein said polishing liquid is prepared by adding a compound having a tetravalent cerium ion or its solution to a solvent in or immediately before the polishing step of said substrate.
7. A polishing method according to claim 6,

wherein said polishing liquid is prepared by supplying a compound having a tetravalent cerium ion or its solution and a solvent to the surface of said substrate in the polishing step of the substrate surface.

5 8. A polishing method according to claim 6, wherein said polishing liquid is prepared by adding a compound having a tetravalent cerium ion or its solution to a solvent before the step of polishing the substrate surface, and the prepared polishing liquid is
10 supplied to the substrate surface within 8 hours from the preparation.

 9. A polishing method according to claim 6, wherein said polishing liquid further contains nitrate ions.

15 10. A polishing method according to claim 9, wherein said polishing liquid contains at least one kind of cerium compound selected from the group consisting of cerium (IV) nitrate and diammonium cerium (IV) nitrate.

20 *Sub 12* 11. A polishing method according to claim 6, wherein said polishing liquid does not contain abrasive grains.

 12. A polishing method according to claim 6, wherein said Ru compound is SrRuO_3 .

25 13. A polishing liquid for polishing a surface of a substrate containing Ru or a Ru compound in a surface region, wherein said polishing liquid contains

tetravalent cerium ions and nitrate ions.

14. A polishing liquid according to claim 13,
wherein said polishing liquid contains at least one
kind of cerium compound selected from the group
5 consisting of cerium (IV) nitrate and diammonium cerium
(IV) nitrate.

15. A polishing liquid according to claim 13,
wherein said polishing liquid does not contain abrasive
grains.

10 16. A polishing liquid according to claim 13,
wherein said Ru compound is SrRuO_3 .

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